AMENDMENTS TO THE CLAIMS

LISTING OF CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method comprising:

(a) exposing a ~~library of phage~~known phage library to a target surface of a material having ~~specific geometrical patterns~~ a flat surface, wherein each phage of at least a portion of the ~~library of phage~~known phage library displays a different exogenous peptide sequence on a surface of the phage,

(b) incubating the ~~library of phage~~known phage library to produce bound phages that are bound to the target surface,

(c) removing the bound phages,

(d) repeating steps (a) to (c) for a plurality of times,

(e) isolating and sequencing individual clones after performing step (d) ~~identifying one or more desired elements of the bound phages, wherein the one or more desired elements are present in every evolution round of repeating steps (a) to (c), and~~

(f) ~~isolating and sequencing the one or more phages having the one or more desired elements~~identifying a DNA sequence encoding a peptide that demonstrates specific binding to the flat surface,

(g) synthesizing the identified peptide, and

(h) confirming the identified peptide's binding specificity.

2. (Previously Presented) The method of claim 1, wherein the target surface is a flat

surface.

3. (Canceled).

4. (Previously Presented) The method of claim 1, wherein the target surface is hydrophobic.

5. (Previously Presented) The method of claim 1, wherein step (d) is repeated at least three times.

6. (Previously Presented) The method of claim 5, wherein during each successive round of step (d), reaction conditions are more stringent than in a prior round.

7. (Previously Presented) The method of claim 1, further comprising amplifying the bound phages.

8-9. (Cancelled)

10. (Previously Presented) The method of claim 1, wherein the target surface is a substrate for scanning probe microscopy.

11. (Previously Presented) The method of claim 1, wherein the target surface comprises graphite.

12. (Previously Presented) The method of claim 11, wherein the target surface comprises highly ordered pyrolytic graphite.

13-14. (Cancelled)

15. (Previously Presented) The method of claim 1, wherein the target surface is flat, smooth, or curved, and wherein the target surface comprises boron nitrate, lead sulfide, zinc selenide, cadmium selenide, cadmium sulfide, gallium arsenide, aluminum arsenide, zinc sulfide, gallium nitrate, indium phosphate, or gallium arsenide.

16. (Previously Presented) The method of claim 1, wherein the target surface comprises mica, silicon, or annealed gold.

17. (Previously Presented) The method of claim 1, wherein the target surface comprises Teflon.

18. (Previously Presented) The method of claim 1, comprising determining amino acid sequences which comprise the exogenous peptide.

19. (Previously Presented) The method of claim 1, comprising determining nucleotide sequences which encode the exogenous peptide.

20-36. (Canceled).

37. (Previously Presented) The method of claim 1, comprising removing an unbound phage prior to removing the bound phages.

38. (Currently Amended) The method of claim 1, wherein ~~at least a portion of~~ the target surface comprises a surfactant.

39. (Previously Presented) The method of claim 1, wherein the one or more desired elements present in every evolution of repeating steps (a) to (c) are present differently.